### THE COLLEGE BOARD REVIEW

News and Research of the - College Entrance Examination Board

Published three times a year by the College Entrance Examination Board 425 West 117th Street, New York 27, N.Y.

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## Appointed Officers

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and Secretary
Associate Director
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The College Entrance Examination Board is composed of 157 member colleges and 22 member educational associations. Each member college has two representatives on the Board. Member associations have from one to five representatives. Members and their representatives are listed in the Report of the Director. Meetings of the Board are held on the first Wednesday in April and the last Wednesday in October.

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# News of the Board

### Transfer Test to end in 1955

Discontinuance of the College Transfer Test after the administration of May 1955 has been approved by the College Board.

Studies conducted during the past year have indicated that the test has not provided any information which cannot be equally well supplied by the Scholastic Aptitude Test as soon as necessary statistical work on norms for college freshmen and sophomores is completed. Reports from Board member colleges which have used the Transfer Test showed that very few, if any, of them would prefer it to the Scholastic Aptitude Test.

# Board changes membership criteria

Regular and substantial use of College Board tests and other services was specified as a requirement of membership at the spring meeting of the Board.

Other amendments to the Articles and Bylaws established a Committee on Membership which will consider applications for Board membership, review the roster of members annually, and make such recommendations as it considers desirable. The committee will consist of nine members of whom at least two will be school representatives.

The action taken by the Board concluded an extensive study of membership conditions and discussion at three meetings of the Board. In general, the amendments eliminate a difference in requirements for independent and tax-supported institutions which had been proposed earlier, and place greater responsibility on the Committee on Membership for applying general provisions to all member colleges.

A statement of policy offered by the Special Committee on Membership which recommended the amendments pointed out that members should be represented at Board meetings, participate in the formulation and operation of its activities, and make use of its services, including regular and substantial use of at least one program of Board tests for all students entering from secondary schools.

All member colleges should comply with these conditions by October 1958, the policy statement advised, with such specific exceptions as may be recommended by the Committee on Membership and approved by the Executive Committee and the Board as a whole. The Committee on Membership will recommend termination of membership of those institutions that have not fulfilled the requirements by that date, or been considered eligible for specific exception.

### Three universities elected to Board

Three institutions of higher learning, Brandeis University, the University of Connecticut, and Villanova University, were admitted to College Board membership at the spring meeting of the Board on April 7.

It was also voted to accord the privileges of membership to the United States Military Academy, which is prohibited by statute from holding formal membership in civilian organizations.

The addition of the three universities increased the total Board membership to 157 colleges and 22 educational associations. Earlier in the year, the Executive Committee received the resignations of the University of Washington and the Headmistresses Association of the Pacific Coast.

# Three new publications issued

Three new College Board publications of interest to schools and colleges have become available in recent weeks.

Two of these, the 52nd Report of the Director and Foreign Languages, a descriptive booklet on the tests of French, German, Latin, and Spanish, have been distributed to subscribers who ordered them earlier in the year. The Report covers Board activities from October 1951 to July 1953 and includes extensive information on the number and distribution of candidates, as well as a special commentary on the influence of external examinations on British secondary schools. Copies of both publications, at a cost of 50 cents each, may now be ordered by non-subscribers.

A special publication, College Admissions, contains the proceedings of the first College Board Colloquium on College Admissions, a four-day "school for admissions officers" held last October. The price of the book is \$3.95.

The final publication of the current academic year will be a description of the English Composition Test. This booklet, scheduled for distribution to subscribers in June, will be sold at 50 cents per copy.

# Edwards joins Executive Committee

C. William Edwards, director of admission, Princeton University, was elected a member of the Executive Committee of the College Board at its meeting on April 7. His service on the committee during the academic year 1954-55 will complete the unexpired term of William K. Selden who resigned upon assuming the presidency of Illinois College.

# Review contents indexed

An index to the articles and announcements which have appeared in the College Board Review will be found on page 450. The index covers the contents from issue No. 1, which was published in the spring of 1947, to the current issue, No. 23, a total of 452 pages.

A strongly constructed loose-leaf binder designed especially for these issues of the *Review* and stamped with its name may be ordered for two dollars from the College Board.

# The College Scholarship Service

The College Scholarship Service is the first wholly new activity of the College Entrance Examination Board since its founding 54 years ago. It is the first activity which does not have examinations as its focus. Yet the Service is squarely consistent with the purpose of the Board, for it is an attempt to provide a cooperative solution for a problem of transition from school to college.

The problem is a relatively new one. Only recently has the administration of scholarships become an indispensable and inseparable part of the administration of admissions. The appraisal of the ability and achievement of applicants for admission is advanced in technique and partially centralized in administration through the examination program. The determination of need for scholarships and other forms of financial aid is relatively undeveloped

and entirely uncentralized.

The desirability of improvement in techniques to determine need and to centralize administration of scholarships was brought home to members of the College Board at its Symposium on Scholarships a year ago. It is unnecessary to repeat the description of intercollege competition and rule-of-thumb estimation of need that have resulted in the uneconomical distribution of scholarship funds and the development of unhealthy attitudes toward scholarships. But two constructive proposals that were introduced at the Symposium should be recalled. Mr. John Monro, of Harvard University, described Harvard's method of arriving



Rule-of-thumb estimates of need have been used

at an amount the parents of an applicant might be expected to contribute to the applicant's higher education. Mr. Monro warned that the Harvard procedure was experimental and called upon other colleges to join with Harvard in the refinement of the technique. Mr. Edward Sanders, of Pomona College, pointed to the desirability of cooperation in the administration of scholarships.2

Shortly after the Symposium, Mr. Eugene Wilson, of Amherst, and Mr. Donald Eldridge, of Wesleyan, urged that these two suggestions

<sup>1</sup> Monro, John U., "Helping the Student Help Himself," College Board Review, 20:351.

Sanders, J. Edward, "Are Scholarships Improving Education?", College Board Review, 20:358.

be taken up and carried forward, through the establishment and operation of a central scholarship service. Since then, several college presidents, among them Mr. Coles, of Bowdoin, Mr. Cole, of Amherst, Mr. Dickey, of Dartmouth, and Mr. Pusey, of Harvard, and a great many admissions and scholarship officers have given thought, encouragement, and support to preliminary plans for the Service.

#### FUNCTIONS OF THE SERVICE

Details of the plans have changed and continue to change, but the essential features of the Service are now clear. It will perform the following functions:

 The Service will prepare and distribute directly and through the colleges a form called Statement in Support of Application for Financial Aid, to be filled out by

the parents of applicants.

2. The Service will receive these forms at the offices of the Educational Testing Service in Princeton and Los Angeles, acknowledge their receipt, scan them for omissions and obvious errors, conduct such correspondence as may be necessary to obtain complete and correct forms, duplicate the original form submitted by the parents, send copies to the colleges designated by the parents, and file the originals.

3. In sending copies of the form to colleges, and in later communications, the Service will report to each college the names of all colleges to which copies are being sent and the amounts which parents expect to provide toward the expenses of their chil-

dren at the colleges.

 The Service will prepare and distribute a manual for the computation by the colleges of the amount to be expected from

In the fall, after the applicants have enrolled, the Service will collect from the colleges reports of financial tenders and awards to their applicants.

6. Also in the fall, the Service will prepare

and distribute to the colleges consolidated reports of tenders and awards made to their applicants by other colleges to which their applicants applied.

Using these data, the Service will undertake to refine the method of computation.

 The Service will also conduct studies of the factors affecting the ability of parents to contribute to the education of their children for the further refinement of the method of computing the expected contribution.

Colleges which participate in the Service will be expected to require the parents of all freshman scholarship applicants to file the form. The colleges will also be expected to submit reports of tenders and awards to the Service. In cases of unusual types of scholarships, special exceptions to the requirement that the form be filed may be permitted, but all aid tendered and awarded will be reported by the colleges.

#### STRICTLY CONFIDENTIAL

The confidential nature of the financial information reported will be respected. Copies of the form will be sent to colleges only at the re-



It will be essential to collect ample information

### COLLEGE SCHOLARSHIP SERVICE

Statement in Support of Application for Financial Aid for Academic Year 1955-56.

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							Other dependents '55-'56
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Employers tional s  Employer(s)		rentries		anations	io.	ed Totals	Over 21 number Home: Fair Value
Employer(s) Address(es)  Salary	pace for	r entries	and expl	anations	Combine	ed Totals	Over 21  Home: Fair Value  Mortgage Equity
Employers tional s Employer(s) Address(es)  Salary Other income	Fati	her 1955	Moi 1954	anations ther 1955	Combine	ed Totals 1955	Over 21  Home: Fair Value  Mortgage  Cther Real Estate: Fair Value
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Employers tional s Employer(s) Address(es)  Salary Other income Business expense*	Fati 1954	her 1955	Moi 1954	anations ther 1955	Combine 1954	ed Totals 1955	Number  Over 21  Home: Fair Value  Mortgage  Other Real Estate: Fair Value  Mortgages  Equity
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Employers tional s Employer(s) Address(es)  Salary Other income Gross income Business expense* Net income Federal tax on above	Fati 1954	her 1955	Moi 1954	ther 1955	Combine 1954	ed Totals 1955	Number Over 21  Home: Fair Value Mortgage Equity Other Real Estate: Fair Value Mortgages Equity Insurance: Cash Value Bank Accounts
Employers tional s Employer(s) Address(es)	Fati 1954	her 1955	Moi 1954	anations ther 1955	Combine 1954	ed Totals 1955	Number Over 21  Home: Fair Value  Mortgage  Cther Real Estate: Fair Value  Mortgages  Equity  Insurance: Cash Value

• Use this space to explain business expenses, extraordinary expenses and liabilities or any other item you feel requires explanation to present a fair description of your financial position.

† Use this space to explain student applicant's own assets, such as trusts, war bonds, and annuities, and expectations from other sources. Specify any outside scholarships.

List colleges to which the Service should send copies. Amount I (we) will provide to-Non-Resident List alphabetically. ward applicant's expenses at col-Enclose \$1 per college leges designated. Give amount Amt. Enclosed ..... for residency and non-residency at college. Date ..... Signatures of parents (guardian) Father or Guardian

quest of the parents. If the Service is later extended to scholarship sponsors other than colleges, copies sent to them will also be authorized by the parents. After they receive the statements, colleges will be expected to exercise the same discretion they now use in handling information obtained on their own scholarship application blanks.

The Service will begin operation in the academic year 1954-55 by distributing and receiving forms in support of applications for financial aid to be awarded in the academic year 1955-56. For the first year, at least, it will be limited to forms in support of applications for aid submitted by students who expect to enter college

as freshmen.

The form which the parents are to fill out will be a critical factor in the success of the Service. On the one hand, it must obtain accurate and ample information; on the other hand, it must be susceptible to economical and legible reproduction. Preliminary drafts of the form have about narrowed the possible types of reproduction to the dye-transfer process, which the familiar Ozalid and Bruning machines use, and the photographic-facsimile process, used by Recordak and Dexigraph. If the dye-transfer process is used, only one side of the statement may be written upon; if the photographic-facsimile process is used, both sides of the statement may be written upon, but this would require photographing both sides, and the photographic process is more expensive. In any case, the final form will be selected with the assistance of a committee of scholarship officers. In doing so, we will not sacrifice the collection of accurate and ample information to the cost of reproduction. We are fully aware that a satisfactory form is the minimum essential to the success of the Service. It will request financial information only, of course, and leave the collection of all other information that may be desired to the individual college.

The proposal to supply the names of all colleges to which statements are to be sent may raise a question of whether this information may not be used for the determination of college choice. To a certain extent, it can be and perhaps will be. When the "college choice rule" was in operation, however, its critics pointed out that scholarship applicants could have no real preference until they knew what scholarship aid would be offered them. This fact minimizes the possibility of using this information for college choice purposes. We will also take care to ask the parents to list the colleges alphabetically, and to provide spaces for the parents to insert the amounts of expected contributions at different colleges under different conditions of residence and non-residence.

Since the names of colleges to which statements are sent will be supplied, it may be asked whether colleges might not use this advance information to raise their offers and to press the candidates into early replies. The answer must rest partly upon confidence in the ethics of the colleges, but lest this be a shaky ground, there are four other deterrents to misuse: the inadequacy of scholarship funds (which reduces colleges' ability to "bid" against each other), the uniform computations, the consolidated reports of tenders and awards, and the Candidates Reply Date Agreement. A fifth deterrent would be agreements entered into by the colleges themselves which, of course, are matters for the colleges, not the College Board, to arrange.

My own feeling, after talking to many persons about supplying the names of colleges, is that this is an essential feature of the Service, that it has more possibilities of benefit than of harm, and that it certainly should be given a trial.

#### ESTIMATION OF NEED

At the outset, the manual for the computation of amounts to be expected from the parents will follow the Harvard procedure, which Harvard has generously offered to share, possibly somewhat modified by experience with data from other colleges to be collected and analyzed this summer. The figure estimated with the Harvard method may well prove to be low for colleges with smaller scholarship funds; it is, in fact,

usually low even for Harvard, which does not have all the scholarship funds it would like to have or needs. But this will not make the estimated figure less useful. The actual award is always the result of two compromises, first between the computed amount expected from the family and the parents' offer, and then between



We have been calling these "pinching studies"

the result of this compromise and available scholarship funds.

In its first year, the Service will undertake to make computations experimentally for only a small group of colleges, but each college participating in the Service will receive the manual and directions for making its own computations.

During and after the first year of operation, the Service will refine the computing procedure through the analysis of parents' statements and tenders and awards made by the colleges. An important feature of the Service is that it automatically collects many of the data necessary to its own purpose. The Service will further refine the method of computation through studies of factors affecting the ability of parents to contribute to the education of their children. We have been calling these projected studies "pinching studies" because they are designed to find whose shoes pinch and where.

The collection and distribution of reports of tenders and awards has presented us with a difficult decision. The Service will request reports from colleges after the applicants are enrolled. It will consolidate these reports and send to colleges a list of all tenders and awards made to their own applicants. The original thought was to confine this service to groups of colleges which had entered into agreements concerning the administration of scholarships. Our present feeling, held strongly by the Executive Committee, is that this service should be provided to all participating colleges. It should be pointed out that no college will receive a complete report of the scholarships granted by any other college. It will receive only the complete report of tenders and awards made by other colleges to its own candidates. These reports should in themselves in the long run identify the college's principal competitors and, at least in part, automatically ameliorate competition. If further improvement of this situation is considered desirable, the colleges will, of course, be free to enter into cooperative agreements to achieve it.

#### SERVICE TO START IN FALL

This fall, the Service will collect and distribute reports of the current year's tenders and awards, even before the statement clearing procedure goes into effect. This will give the Service a chance to work the "bugs" out of the procedure and to obtain data for the refinement of the computing procedure. It will also give the colleges an opportunity to see how their own offers and awards compare with the offers and awards of other colleges.

As with the supplying of names of colleges to which copies are to be sent, the award-reporting procedures, we feel, have in them more possibilities for good than for evil, and we would like at least to start with them.

The Service has many possibilities that cannot be used at the outset. The most obvious is the central determination of the accuracy of the information submitted by the parents, that is, credit-checking. To do this once, centrally, for each applicant would be much more economical than to do it many times, at the colleges, for each application. There is a good chance that parents who might be tempted to "fudge" the

information on the form will be discouraged by the knowledge that they are submitting the form to a central agency and by the fact that copies may go to several colleges. We hope next year to make credit checks on a sample of the statements to see just how accurate they are and to test various methods of verifying their accuracy.

#### POSSIBILITIES FOR THE FUTURE

Another possibility is the extension of the Service to scholarship sponsors such as corporations, unions, and fraternal organizations, which will almost certainly want to use it. For them, as for the colleges, the Service will provide a means to determine need objectively and thus to stretch their scholarship dollars. Reviews of scholarships in upperclass years and determinations of the financial needs of graduate fellows (though the latter would require somewhat different procedures) are other purposes to which the Service could be adapted. Not beyond the realm of possibility, but certainly remote in time, would be the use of the Service to appraise the financial resources of applicants for admission as well as of applicants for scholarships. This would enable the colleges to set sliding tuition and expense scales, should they ever wish to. The central filing, copying, and distributing features of the Service might be extended to a uniform school transcript form with

William C. Fels is not only Associate Director and Secretary of the College Board but prime mover of the large-scale study of the scholarship situation in the United States which was authorized by the Board last October. The first product of the study is the service described in the above article,

which is substantially the explanation presented to members of the Board at

their meeting of April 7. The article, unfortunately, cannot describe the very many discussions with college people who have contributed useful ideas to the plan nor the skull sessions with Educational Testing Service officers who have produced detailed procedures for its smooth administration.

much saving in clerical expense to the schools and in eyesight to the colleges. But all these possibilities are for the future.

For the present, we shall have to hope for narrower but still solid benefits from the Service. The improvement of the technique of assessing need and the centralization of administration would make it possible for the colleges to administer scholarships more equitably and more economically. The latter could mean either more scholarships or less expense. No less important to the colleges would be improvement in public understanding that scholarships are grants-in-aid for needy students, necessarily limited to the ablest by the shortage of scholarship money, but not mere unearned increments for ability. If there is a reduction of what seems to the students to be competition among the colleges for the ablest among them, there should also be a lessening of the collecting and parading of scholarship offers. The clerical burden of administering scholarships would be lessened.

Parents can hope for an informed appraisal of their finances and a reasonable offer of aid. They will be saved the filling out of many forms. Students can look forward to awards of scholarships, loans, and student employment in accordance with their needs, neither so large as to unnecessarily deny funds to others nor so small as to place an impossible burden of employment upon them. In addition to these specific benefits to colleges, parents, and students, we hope for an increase of the general fund of knowledge about scholarships, which is now pitifully small, and for the dissemination of information on awards available and the conditions upon which these awards are granted. It is not unlikely that the Service will come to the publication of a College Scholarship Handbook as a companion volume to the College Handbook.

#### FEE NECESSARY

One unfortunate aspect of the Service is that we must charge a fee, even a small one, to scholarship applicants, who are the least able to pay. We believe that the advantages to the applicant will outweigh the cost and have kept the fee as low as possible, one dollar per copy of the statement. In fact, using this fee, it is not at all certain that the Service can break even with fewer than 10,000 applicants, though the cost of consolidated reports of tenders and awards and of computations (when the Service is ready to provide these) will be borne by the colleges. The duplication of statements is relatively inexpensive, varying from a few cents for a onepage form by the dye-transfer process to 50 cents for a two-page form by the photographic process, but there are many other expenses: the printing and distribution of forms, the receipt and scanning of statements, correspondence on incomplete or incorrect statements, the notification of the parent that the form has been received, filing, preparation of additional reports, administration, and the ubiquitous "overhead." However, even if the Service could be provided free or at the expense of the colleges, it would be necessary to charge a fee to deter unreasonable multiple applications.

#### ECONOMY OF EFFORT

Some idea of how large the Service might be if all the colleges of the Board participate and of the economy of effort that will be effected when it is in full operation is suggested by a few basic figures. The 122 of the 155 College Board member colleges that responded to a questionnaire reported that they received 151,000 completed applications for admission in 1953. Of these, 39,000 were applications for scholarships. Twelve thousand of these "applications" (we cannot say "applicants" because of multiple applications) were offered scholarships and 9,000 applicants enrolled with scholarships. The 39,000 applications for scholarships constitute a measure of the number of copies of statements the Service might be called upon to send out. The 9,000 enrolled is the minimum number of statements the Service might be called upon to receive if all member colleges participate. The difference between the 9,000 enrolled and the 12,000 "applications" offered



The phenomenon of multiple application is recognized

scholarships is interesting, because it shows that, even if it is assumed that there was no multiple application, 75 per cent of the "applications" offered scholarships enrolled with scholarships at Board colleges. Since we know there is multiple application, the percentage must be even greater. The difference between the 12,000 tenders and the 39,000 completed applications suggests that the increase of public knowledge about the administration of scholarships would do much to reduce unwarranted applications or, if the applications are warranted, to substantiate the colleges' claim that more scholarship money is desperately needed.

#### LIMITED TO MEMBERS AT FIRST

Though it will be necessary at first to limit the Service to member colleges, this should not prevent it from making a significant contribution to the solution of the scholarship problem. The 155 member colleges award 41 per cent of the approximately \$30,000,000 awarded in undergraduate scholarships by colleges each year. The remaining 59 per cent is scattered among some 1,650 institutions. If the Service is successful, we would expect member and other colleges to follow the same pattern with it that they have followed with the examination program, that is, we would expect them to come into the Service when they are in a position to find the Service useful to them, just as they come into the examination program when they find themselves in need of more accurate selection procedures.

# Questions and Answers

# From the Board discussion of the Scholarship Service

Q. Many colleges have local and regional alumni committees working on scholarships. Will they have access to the financial information reported by parents?

A. Copies of the statements will be sent to colleges only upon authorization by the parents. The colleges will be expected to handle this information with the discretion they now accord information received through their own scholarship blanks. The return of a great deal of exact financial information to the local community might well cause embarrassment if its confidential nature were not respected.

Q. Will the colleges' reports of tenders and awards cover forms of aid other than outright grants, that is, will they cover loans and parttime employment?

A. Yes. The colleges will be asked to report the amount tendered to each applicant as a grant, loan or student employment compensation, and to specify the amount awarded.

Q. Would it not be helpful in appraising the financial resources of the parents to know whether their other children were receiving scholarship aid?

A. It probably would be helpful. It should be emphasized, however, that this is a financial statement, not a scholarship application blank. Every college will need to have its own scholarship application to get other kinds of information and may wish to request supplementary financial information on that form.

Q. Will this not render obsolete the giving of grants on the basis of scholarly achievement rather than on need?

A. Such an effect would be impossible because in many cases funds have been made available to colleges on condition that they be awarded on the basis of ability or other specific qualifications. Also, the fact that there is less scholarship money than need for it inevitably establishes ability as an award criterion. Certain scholarships will undoubtedly continue to be awarded without reference to need and many scholarships will involve both need and ability.

Q. Will copies of the statement be available to scholarship sponsors other than colleges?

A. Yes, with the consent of the parents, although this part of the Service may not be offered in its first year of operation. In any case, copies would be sent to scholarship committees of sponsors such as corporations upon conditions similar to those which they accept in receiving test scores for use in determining scholarship awards. The committees are required to maintain the security of the scores and to include as members persons capable of interpreting the scores in a professional manner.

Q. Is there any indication of the number of colleges which are interested in participating in the Service?

A. Most of the approximately 25 colleges that were involved in preliminary discussion and planning of the Service were interested in participating. As of May 12, 45 colleges had announced their intention to participate in the first year of the Service's operation.

Q. Does the Service intend to request information of a financial nature from schools?

A. The Service will not request statements from principals or headmasters. Individual colleges, of course, will be free to do so.

# Testing by Ear

A report on experiments with the first College Board test in aural comprehension of French—by Henry S. Dyer

A new College Board test in the aural comprehension of French will be available to member colleges this September as part of the Board's placement testing program.

The test was developed through the interest of the Barnard-Yale Conference on the Teaching of French, which met periodically in New York and New Haven to discuss problems of language instruction. Members of the Conference, which was recently absorbed into the Northeast Conference on the Teaching of Foreign Languages, were interested in the possibility of a good objective test in aural comprehension of French—one which would be reliable, valid, and easy to administer.

The prime mover in this enterprise, Nelson Brooks of the Westover School, brought long experience in language testing and a wealth of imagination to the project. With the aid of other members of the Conference, he produced two forms known as the Barnard-Yale Aural Test. The test, when given at a number of schools and colleges on an entirely informal basis, prompted an enthusiastic reaction from teachers.

Encouraged by the promising results of his preliminary work, Mr. Brooks approached the officers of the College Board to see whether they would be interested in contributing technical advice to the project and possibly incorporating such a test in the Board's program. Although the officers did not—indeed, could not—commit the Board on the latter point, they were ready and willing to help the Conference carry through



Je suis enchanté, mademoiselle

a validity study of the test. This article is a report on that study.

In the summer of 1953 data from the two early forms of the test were analyzed in order to find the questions used in them which had proved most effective. The best questions were then combined into a new form known as Barnard-Yale Aural Test—Form A. This consists of two types of documents: a "script" which may be put on a tape recorder or read by the examiner directly to the students, and test booklets in which the student records his answers. Each question is repeated once in the script.

The test has four parts. In Part I each ques-

tion consists of a series of short sentences that sound somewhat alike, such as:

> Je mangeais. J'en mangeais. J'ai mangé. J'aime manger. J'en ai mangé.

One of these sentences is read from the script, and the student, who has all of them printed in his test booklet, puts an X beside the one he thinks was uttered. There are 10 such questions (i.e. 10 groups of short sentences) in Part I. The idea in this case is to test the student's accuracy of aural perception.

In Part II, the script contains 10 questions to be read aloud, such as:

Que dit-on à une jeune fille a qui on vient d'être présenté?

In the test booklet, the student has five choices from which to select an appropriate answer:

> Merci, mademoiselle. S'il vous plaît, mademoiselle. Pardon, mademoiselle. Je suis enchanté, mademoiselle. Au revoir, mademoiselle.

Selecting the right answer tests two things: whether the student heard the question aright; whether he understood what he heard.



Henry S. Dyer holds the record among contributors to the Review—eight articles in the seven years of the publication's existence. The first appeared on Page I, No. 1, Volume I, and curiously enough it, too, reported on a College Board Placement Test in French. That article was written at Harvard University and later on others originated at the College Board office when he became Associate Di-

rector in charge of research. Writing for the Review seems to have become no less than that rarest of phenomena, a good habit, and it is hoped that Dr. Dyer will be unable to break it when he moves to Educational Testing Service as Research Vice President at the end of June.



Pour savoir l'heure, on porte sur soi . . .

Part III is similar to Part II, except that instead of questions, the script presents the student orally with 10 incomplete statements. The student's task in this case is to pick from among five words or phrases printed in his booklet, the one word or phrase that correctly completes the statement he has heard. For instance, the incomplete statement that the student hears might be this:

Pour savoir l'heure, on porte sur soi . . . .

And the student selects the appropriate completion from the following five listed in his test booklet:

Une pendule. Un horloger. Un horaire. Une horloge. Une montre.

Part IV is the most complicated. The script presents a short prose passage in French to be read aloud, followed by five questions also in French. For each question there are five optional answers printed in the student's booklet. The student puts an X beside the answer he believes to be correct. This whole procedure is repeated once, so that the student who may have missed something the first time through



Que faites-vous ce soir?

will have a second chance. Part IV consists of four passages with five questions on each. The actual administration of Part IV is simpler than it may seem from the description here given.

Several colleges gave Form A to their entering freshmen in September 1953 on a trial basis. A month later the French instructors in six of these colleges' rated the aural skill of the students who had taken the test. The ratings were made on a simple scale in which "4" represented excellent aural skill and "1" represented practically no such skill at all. The number of students on whom ratings were made was 887 in all. These were distributed through 19 different classes in the six institutions. A correlation between the aural test score and the rating on aural skill was worked out for each class separately. The median of these 19 correlations is .51. This is equivalent to a "per cent agreement" of 50.

Is this correlation high or low? All one can say is that the aural score tends to correlate better with the ratings than does the Scholastic Aptitude Test-Verbal score or the score on the regular College Board reading test in French. The SAT-V for these students has a median correlation of .24 with the ratings (PcA = 40); and the French reading test has a median correlation of .35 with the ratings (PcA = 44). A lower correlation for these tests should be expected, it may be noted, since they are not designed specifically to measure aural skill. In short, if one can believe that the ratings were really ratings of aural skill, then it seems safe to conclude that the aural test is doing precisely the job it was intended to do.

There is, of course, the possibility that the aural test measures aural skill more accurately than the ratings do. From one college the instructors confessed that they thought their own ratings were "very subjective and unreliable." The chances are that if the ratings had been uniformly "objective and reliable" the median correlation might have been higher.

The probable error of measurement of Form A is 2.2 in terms of the raw scores. This compares favorably with the language tests in the Board's regular program.

The Barnard-Yale Aural Test-Form A has now passed into the hands of the Board's committee of examiners in French with Mr. Brooks as its consultant. The examiners may tinker with it with an eye to improvement, or they may decide to leave well enough alone. In any case, the test will be available to member colleges this September as a College Board placement test. The possibility of introducing it later into the entrance testing program will depend, among other things, on whether it is possible to overcome the obvious technical difficulties involved in trying to give it under approximately uniform conditions at some 600 different examining centers. Experience with the test in the placement testing program should yield useful information on problems of administration which may be encountered.

<sup>\*</sup>College of New Rochelle, Columbia College, Mount Holyoke College, Princeton University, Wayne University, Yale University.

<sup>&</sup>lt;sup>9</sup> For an explanation of the "per cent agreement" concept, see College Board Scores, Their Use and Interpretation, No. 1, pp. xvii-xix.

# A Problem in Communication



Mark Twain remarked that it is not so much ignorance that makes trouble in this world; it's people knowing so many things that aren't so. In the field of college admission, a great many decisions about the choice of a college are made by students and their parents and advisers on the basis of information not only incomplete, but often wrong and misleading. Student selection by the colleges, too, is often made with less complete information than it should be. In other words, school-college relationships are essentially a problem in communication. It may be that communication theory, which has had a notable development in recent years, can bring us some hints on how to deal with this problem.

It is a basic principle of communication theory that the broader the background of relevant information already in the hands of the recipient of a message, the briefer the message need be to accomplish its end. This, of course, is the principle behind the cablegram code book.

In a society which is small, stable, homogeneous, relatively static, and in which custom and tradition play a large part, there is no serious communication problem involved in managing the transition to higher education. Some of these conditions, for example, were met, to a considerable extent, in Great Britain in the nineteenth century.

What, on the other hand, are the conditions that intensify the need for communication? This would occur in a society which is large, diverse, changing, full of regional differences, competitive, with a population rapidly growing, heterogeneous in its origins and composition, and of which a substantial proportion aspire to higher education. This is obviously a description of our society and our educational system in the United States today. An extraordinary diversity, an exuberant rate of growth, and a propensity toward experiment and, we hope, toward progress, characterize our secondary school system. Our higher institutions, if less rapidly growing and less experimental, are so numerous and so diverse that no prospective student could expect to be conversant with more than a small fraction of them.

Our problem is thus quite different from that of moving a small group, destined from their early years for intellectual pursuits, from pre-



B. Alden Thresher has been almost as busy in the College Board as he has been at Massachusetts Institute of Technology. He joined the faculty in 1929 as an instructor in economics and rose through the usual academic ranks to professor by 1945. In between, in 1936, he was appointed director of admissions, the post he now holds. Professor Thresher has represented M.I.T. in College Board proceedings.

is now one of the five Custodians of the Board, and has been a member of several of its important committees. He was chairman of the committee which planned the first Colloquium on College Admissions and is assisting the 1954 committee. The paper from which his article is adapted was presented in April at the national meeting of the American Association of Collegiate Registrars and Admissions Officers and will appear in AACRAO'S College and University.

paratory courses into the university. Our immense diversity of higher institutions brings to the prospective student a wealth of opportunity, varying, it is true, in quality, but diverse also in the vistas which it opens up to him. If, therefore, we have some problems, let us bear in mind that they arise out of an embarrassment of riches; they are not, at bottom, the problems of a struggle for a share of scarce opportunities.

#### WHAT INFORMATION IS ESSENTIAL?

Let us now consider for a moment in more detail the nature of the communication problem. What is the essential information to be transmitted? We shall limit ourselves here, first, to information from the school to the college; and second, information from the college to the school.

Information to be transmitted from school to college obviously includes data about individual applicants—their marks, test scores, and the like, as well as their personal traits. But the college must, or should, know a great deal also about conditions in the school, the quality of instruction, the nature and extent of the guidance program, the social and economic background of the school's clientele, and so on. It is to get some glimpse of these factors that college faculty members, particularly those who teach freshmen, should be encouraged to visit the schools which send them students.

It is probably not an exaggeration to say that the average college professor seldom if ever sees the inside of a secondary school from one year's end to another. He thinks that freshmen grow on trees, and need only to be shaken off once a year in September. A program which brings a group of younger faculty members into direct contact with high schools, and with the processes that guide high school students toward college, can yield much value in increased understanding. It may, for example, dispel the fiction that the preparation of students now is not as good as it used to be. As a matter of fact, it never was. I saw recently a report of a university president, deploring the fact that "our

students no longer come to us as well prepared as formerly in English and mathematics." The date of the report was 1871.

Now consider for a moment, information from the college to the school. Most important is what we may call guidance or non-institutional information, not necessarily involving any specific college. The student who contemplates higher education needs to learn something of the nature of studies at various levels, the outlook and objectives of college and university study, and the kinds of preparation necessary for the various occupational or professional goals which may attract him. All this can, in principle, at least, be conveyed without reference to any individual colleges. In practice, particular institutions, whether because they are nearby, or because they are renowned, serve as types, so that the student's notions and preferences about the world of higher education gradually crystallize, like rock candy upon a string, upon particular colleges about which he has heard.

#### GET THE FACTS

That this information should be, so far as possible, accurate, is a joint responsibility of colleges and of school guidance counselors. This is an area full of old wives' tales, of dubious origin and veracity. Guidance counselors may



The college professor thinks freshmen grow on trees

not have the time, nor wish to take the pains, to inform themselves accurately and currently about the institutions to which their students aspire. It is very easy to pass the various colleges off carelessly as types, with a cliché or a catchword to characterize each. We all know, too, the counselor who industriously steers students to his own alma mater, but pays little attention to any other. A comparable menace is the counselor whose ideas about individual colleges were all formed and neatly classified 20 years ago and have not changed since.

For a part of this the colleges are to blame. Until the college catalogue ceases to be a partisan document, largely devoted to selling, these misunderstandings will exist. Not only should college faculties visit schools, but prospective students and their advisers should wherever possible visit colleges in person. It is difficult wholly to conceal the atmosphere of an institution, even from the casual visitor who is actually there in person. Local school committees are just beginning to learn that a modest appropriation to enable high school counselors to visit a dozen or two colleges may yield large dividends in the intangibles of intelligent college selection.

#### MYSTERY MAKES MULTIPLE APPLICATIONS

One particular aspect of the information problem merits some attention, not because it is basically the most important, but because it can be very annoying to admissions people, and needs to be seen in the proper perspective. This is the problem of multiple applications and the attrition that occurs before the class that is granted admission becomes the class that actually registers in September. This, too, is a problem in communication.

I quote here from W. H. Warren, Jr., of Antioch College, who writes: "I think the root of the problem lies in the student's inability to evaluate himself in relation to the standards of admission set by the colleges.... As long as the student feels he is pitted against a 'masked opponent,' the numerous unknowns in his college's selection policy, he does not know how to evalu-



The student feels pitted against a masked opponent

ate his own chances for success. If the colleges honestly present their program and if, through adequate counseling at the high school level, the student learns how to evaluate the college, the element of intelligent self-selection on the part of the student will play a far greater role than it does now. One can read a variety of college catalogues without feeling that any one of the institutions is much different from the others. Yet, while there are great similarities among our liberal arts colleges, for example, different institutions do have different atmospheres, different standards, different depths of dealing with their students. If these can be conveyed to the prospective student, he is in a far better position to intelligently select an institution which will meet his needs."

#### CAVEAT EMPTOR

Essentially it is the inability of the student to unmask the "masked opponent" that leads him to take the elaborate precaution of submitting multiple applications. Better guidance will aid him in evaluating himself in reference to college standards. More restrained and intelligent use of scholarship offers and adjustment of these to the actual family need would eliminate many abuses. But even after these are done, we still

have what is basically a competitive market situation in the economist's sense.

In a perfect market, each potential buyer and seller is currently informed of the amount and price of every sale, as well as of the specification of the commodity sold. He is at all times informed of the various alternatives open to him if he decides to reject a given offer. This condition is far from being met for the prospective college student.

The element of time also is against him. Instead of being able to explore several alternatives successively, he feels that he must, in effect, put in three or four bids simultaneously, because if one does not turn out well, it may be too late to initiate proceedings to put in another.

#### THE MISSING THIRD

In order to get some rough measure of the extent of this problem, I inflicted a brief questionnaire on my friends and colleagues in other institutions. This has brought in a sampling of 58 institutions of various types out of 67 queried. Here are the results, first with regard to attrition—that is the per cent of students granted admission who nevertheless decide not to enter:

In 12 engineering schools, the shrinkage ranged from 6% to 51%, averaging 33%.

In 13 large, independent universities, the shrinkage ranged from 3% to 54%, averaging 37%.

In five state universities, the shrinkage ranged from 10% to 38%, averaging 27%.

In five independent women's colleges, the shrinkage ranged from 43% to 54%, averaging 46%.

In nine coeducational liberal arts colleges, the shrinkage varied from 19% to 49%, with the average 39%.

In 11 men's liberal arts colleges, the shrinkage varied from 30% to 55%, averaging 48%.

Taking the total sample, some 58 institutions, the shrinkage was 35%. In round numbers, therefore, more than one student in three admitted to college fails to turn up on registration

day. For the independent institutions, a shrinkage of from one-third to one-half is characteristic, and for these especially the problem is a troublesome one.

Frank Bowles, Director of the College Entrance Examination Board, has characterized the multiple application problem as a case of "educational bad manners." It is undoubtedly this, but looked at in the light of market and communication theory it is something more. It is a symptom of lack of information. A group of floor traders around a post in the stock exchange may seem to have atrocious manners, but their behavior is appropriate to the situation. Basically, they are trying to communicate in order to work out the best possible bargain open to them in the light of their understanding of the situation. So the student who puts in applications to several colleges is trying to protect himself in a dilemma which might largely disappear if he had the opportunity to be better informed. If we cannot give him an early definite answer, can we expect him to give us an early definite answer?

### DO FEES AND DEPOSITS HELP?

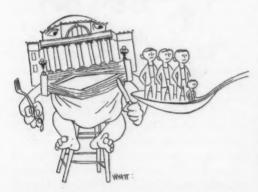
Application fees are sometimes thought of as a means of reducing multiple applications. Of the 58 colleges which responded, 26 require an application fee, ranging from \$5 to \$15, payable when the application is filed, and ordinarily not refundable. Four of these regard the purpose as being reduction in the number of casual applications, seven say the purpose is to reduce costs, and 14 say it is both. There seems to be little difference among categories of institutions in the incidence of these fees, except that the eastern women's colleges, which have traditionally exacted a \$10 fee, have also the highest shrinkage of any group. This casts considerable doubt on the theory that a fee weeds out any considerable proportion of casual applications.

Statistics were also assembled on deposits to reserve a place in the entering class after admission had been granted. Out of 58 institutions responding, 42 have such a deposit, ranging

from \$10 to \$100, with a tendency to cluster around levels such as \$25, \$50, and \$100. These deposits appear useful in the fine adjustment of class size, particularly in dormitory colleges where the exact number of bodies in the class is important. They usually come too late, however, to exert any strong control over class size.

In studying the communication problem, key figures are the number of schools represented in the freshman class, and the average number of students per high school per year entering a given college. Our respondents have shed some light on these matters:

For 45 institutions for which these figures were complete, the average number of freshmen entering per feeder high school was 3.31. Individual values range from 18.8 for a large city university with a local clientele, to 1.03 for a small coeducational college at some distance from any large center. The fact that the overall average of 3.31 is so low emphasizes the magnitude of the communication problem. It means that a college with 500 freshmen has a minimum of 150 schools to reach even in a single year. Even for the state universities, which are usually pre-eminent in their own areas, the freshmen-per-school average only 4.8. For the liberal arts colleges as a group, the average is 1.85 freshmen per high school. Obviously the magnitude of the communication problem is inversely proportional to this index. And since the



The average number per feeder school was 3.31

typical college must reach so many high schools, it follows that the guidance service of the typical high school must have some familiarity with many colleges.

Assuming that visits to high schools by college representatives are a valid and important means of communication, we can set up an index of the extent to which a college is reaching the schools which fall within its natural sphere of influence. Such an index would be obtained by dividing the number of high schools which a college visits during the year by the number of high schools represented in its freshman class. The resultant figure measures, so to speak, the degree of saturation within the group of high schools that chiefly feed the institution in question.

For the sample of 45 institutions among our respondents for whom this index can be calculated, we get an average figure of .64. In other words, on the average, each institution visited last year only two-thirds of the high schools represented in its freshman class for that year. This would probably mean much less than half of the schools which, over a three or five year period, sent it some students. The state universities, with an index of .21, and the women's colleges, with an index of .19, both average very low on this ratio. Presumably the state institutions feel less need of visiting schools, and the women's colleges feel they can't afford it. The independent colleges average higher, with the coeducational group showing a figure of 1.35, and the men's group .72. One coeducational institution is so filled with missionary fervor as to show an index of over six.

These figures are merely illustrative of possible methods of studying the communication problem. Each of us can find a certain interest in comparing our own performances with these norms. But most important, we should bear in mind that a great deal more effective communication will have to take place through many means and agencies, if we are to solve satisfactorily the higher education problem of the next few years.

# The German Test-Good, Bad, or Indefinite?

German teachers appraise the present test and suggest methods to improve it—by RICHARD G. KING

At the Twentieth Annual Meeting of the American Association of Teachers of German a committee was appointed "to examine the Cooperative and College Board tests with a view toward revision." The formation of the committee was prompted first by a realization that instruction may suffer if conditioned by "bad" or "invalid" item types in a nationally standardized test, which to some has become an educational end in itself; secondly, by an awareness of the lack of coordination between school and college instruction reflected in differing attitudes toward and uses of the tests; and finally, by a conviction that the AATG has both the right and the responsibility to represent its members' views on aims and objectives to the builders of the tests and to the administrators who use them.

#### DEVELOPMENT OF PRESENT TEST

The evolution of the present form of the College Board German Reading Test can be best understood in the context of the growth and development of the College Board itself. The Board was founded in the late 1890's largely in order to bring about some agreement among the member colleges as to admission requirements—requirements which in their infinite combinations and permutations were creating an impossible situation in the explosively expanding high schools. The common entrance examinations prepared and read by College Board examiners were of the essay, composition and translation variety, and insufficient mastery of prescribed

skills or syllabi could be cause for rejection for admission. Old examinations were released to the schools, and the schools followed the syllabic guides carefully.

Since the 1920's a tremendous change has taken place in college admissions policies as a result of College Board test development and research. The success of the Army Alpha Intelligence Tests of World War I led to the construc-



The explosively expanding high schools

tion of the Scholastic Aptitude Test, which in turn caused colleges to examine the possibilities of predicting college grades on the basis of verbal and mathematical aptitudes. Meanwhile so called "comprehensive" achievement tests in the various subject matter areas were being developed, tests which presupposed not the completion of specific syllabi but the ability to manipulate ideas within given areas. These were adapted to objective testing which meant that thousands of dollars previously expended on readers could now be poured into statistical analysis of test results. This, in turn, meant that highly reliable instruments were created which could also be used to predict success. It seems apparent that college admission committees are now considerably less concerned with what sorts of language skills a student has mastered than they are with the prognosis of future learning success. Statistical analysis has also permitted the establishment of scale score norms for second, third and fourth year students on the same test, but few admission people have been interested enough to inquire whether this convenience really provides the most valid and complete information about the students' secondary school language training. It is seldom that college faculties pass on to the schools through their admissions officers suggestions as to the kind of language training and skills they would like their entering students to have.

### "ALL THINGS TO ALL MEN"

Because the tests are highly reliable and easily scored, they are now also widely used by the colleges as course placement instruments. The College Board actually supplements its entrance testing program with a placement testing program which utilizes old entrance tests. In addition, many colleges use College Board entrance and placement tests scores as a means of satisfying college language requirements. There has even been the suggestion from some quarters that the test be used for admission with advanced standing. Yet, basically, the test still purports to be a secondary school



With overlapping purposes, conflicts are inevitable

achievement test and, as such, presumably a reflection of the main aims and objectives of secondary school language instruction.

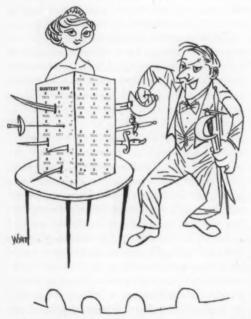
It is no wonder that we criticize a test which we suppose to be "all things to all men." Actually, it happens that the same or similar elements in a test can serve many overlapping purposes, but conflicts are inevitable.

The Educational Testing Service, which constructs the German test for the College Board, is interested in getting high test-retest reliability. In a test restricted to one hour for practical reasons, this means a large number of short items with preferably at least four choices. The shortest type of item is a simple vocabulary item. It happens that vocabulary scores correlate well with reading scores and that they are good predictors of subsequent reading success. They might also be useful for diagnostic purposes if the vocabulary sub scores were reported together with group norms. But since a vocabulary test is only an indirect measure of reading ability, it is, on the face of it, an unsatisfactory tool for judging whether or not a man has met his college language reading requirement, for instance. Such a test or sub test does raise knotty problems of word frequency; it does oversimplify the multiple meaning problem; its poorer item "distracters" are at best artificial; and it is open to the charge that it encourages word card study to the exclusion of extensive reading. If the College Board wishes to counter this latter charge it could, with the help of some of the member colleges, conduct validity studies similar to the Scholastic Aptitude Test coachability study, matching word card study or "coached" groups against reading control groups. Doubtless this has been done in connection with other tests. The present test contains only one German-English vocabulary section.

In general, the College Board and the Educational Testing Service have concerned themselves primarily with test-retest *reliability* and measures of *internal* consistency (high correlations of individual item scores with total test scores but not with any *outside* measure of achievement). There have been very few external validity studies of sub-sections or of total test scores, and these mainly at the college level.

The Educational Testing Service no longer makes a general practice of pre-testing new items for validity purposes but relies on the judgment and ingenuity of its staff and College Board committees of examiners for items which have "inherent" validity. We have been much impressed personally by the judgment and ingenuity of these people. Far from working at cross purposes with German instructors or with the Foreign Language Program, they have gone on to develop item types which have so far been rejected as being too "ambitious" for the traditional instruction now offered. They have, for instance, anticipated the highly pertinent remarks by Meno Spann in the March 1953 German Quarterly on matters such as postpositions, functions of the reflexive, word formation, special verb-object and verb-prepositional phrase relationships, etc. We suspect that many AATG members may not be aware of the promising new so-called "definition" and "situation" items which are already part of the German test.8

Our committee feels that while mastery of some of the more difficult concepts suggested by Mr. Spann are beyond the scope of a test designed to measure achievement at as early a point as the second year, the problems of word order posed by the peculiarities of German inflection and syntax can and should be dealt with. We have submitted actual sample items to the Educational Testing Service and have suggested that they might be included at the expense of vocabulary items or "grammar in context" items. The latter item type was originally "borrowed" from the French test but seems to us less applicable to a German test precisely because English word order is less parallel to German than it is to French.



Measures of internal consistency are concerned

<sup>&</sup>lt;sup>1</sup> A three-year program directed by the Modern Language Association and supported by the Rockefeller Foundation to stimulate interest in language study and strengthen the teaching of foreign languages in schools and colleges.

<sup>&</sup>lt;sup>a</sup> Examples of item types used in the German test appear in the College Board Bulletin of Information, College Board Tests, which is available on request, and in the booklet Foreign Languages, which may be ordered from the College Board at 50 cents per copy.

Our committee is questioning again the suitability of a single test designed to measure achievement for second, third and fourth year students whether for admission or college placement purposes. Convenient as are the scale score "experience" increments from year to year, we suggest that fourth year students should be able to handle more difficult kinds of items. Certainly they should if they are candidates for advanced credit and even if they are candidates for advanced placement without advanced credit. The Educational Testing Service has on file, for instance, very difficult reading comprehension items which test a student's appreciation of mood and his sensitivity to nuances of expression. Would not these be a more valid measure of reading and thinking "in the language," a goal which we seek to implement by college language requirements?

We are watching with interest the development by the Educational Testing Service of oral-aural examinations in French and Spanish. We are happy to contemplate the effect of such tests on the Foreign Language Program but feel that we are not yet ready to have them made an integral part of a national standardized admissions testing program. Nor do the present limitations of time and national test administration permit it. We trust they will be used for placement purposes by individual colleges. We hope the possibilities of "culture" tests will be further

explored for the same purposes.

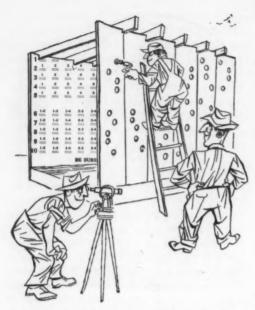
#### VALIDITY FOR WHAT?

In making our suggestions about item types we are really only making guesses as to the consensus of German instructors as to their best inherent validity. But we are still faced with the problem-validity for what kinds of purposes? Is it validity for an end-of-course secondary school achievement test, and, if so, for what course objectives and for what level of training? Is it for a college admissions test, and, if so, is it for prediction purposes or for measuring specific skills? Is it for a college placement test, and, if so, for placement in what kind of a course? Is it



Can one test measure different years of study?

for satisfying a college reading requirement, and, if so, for what stated objectives? Is it for admission with advanced standing, and, if so, as a substitute for what sort of equivalent study? The test is supposed to be, after all, a college entrance examination, but college admissions committees and college committees on educational policy offer us little help or guidance. Most of them are unaware of and not interested in the content of the test. Do they want a reliable predictive index of subsequent language success, or, as is probably more often the case, do they want another score to contribute to the accuracy of a single predictive index of general college success? Or are they still sincerely concerned that students come to college with particular language skills, and are they interested enough in the particular skills to look at sub scores? Are they interested enough in secondary school language training to ask for a test which may be less reliable, a less good predictor of success but more valid in terms of the aims and objectives of secondary school teachers? And



Test construction takes ability, judgment, imagination

are these teachers in any agreement on these aims and objectives?

The Educational Testing Service has tried to seek an answer to this last question by questionnaire. The answers are largely "traditional." Secondary school teachers feel that the tests should measure vocabulary, grammar and reading comprehension with the emphasis on the last of these. No comments were sought on actual item types. Perhaps the AATG should undertake such a sampling of opinion. In any case, individual secondary school AATG members can be assured that their constructive critical comments will be given serious consideration by the College Board and by the Educational Testing Service, especially if they incorporate into them rather specific positive suggestions for item types.

AATG college faculty members, particularly those teaching in College Board member colleges, can probably make their views known most effectively if they communicate with the Board through their respective admissions offices. The College Board, while a non-profit organization, is really operating a cooperative business venture. In order to serve its customers better it purchases the research services of the Educational Testing Service. While the customers are actually secondary school students, it is the colleges which do most to create the "demand" for the tests through their admission requirements, and it is the admissions officers who administer these requirements. We are suggesting that it may be healthy to prick the consciences of these admissions officers as well as our own and those of the Educational Testing Service researchers.

Finally, we suggest that test construction, whether of essay or objective tests, is not the exclusive province of testing experts in Princeton or anywhere else. The Educational Testing Service conscientiously attempts to put instructional aims and objectives first, but it is bound by certain practical limitations in a national testing program. Attainment of certain aims and objectives will always have to be tested "locally." Determination of validity and reliability coefficients, item analyses and other statistical services lose their mystery with use, and there is usually good local statistical assistance available. But ultimately the most important factors in good test construction will always be professional competence, judgment and imagination in the subject matter area.



The report from which Richard G. King's article is taken was prepared by him for a committee of the American Association of Teachers of German of which he was chairman. The full report of the committee, which included Professors Walter V. Kaufers of the University of Illinois and Alfred P. Kehlenbeck of Iowa State College, appeared in the March 1954 issue of the Association's German

Quarterly. Mr. King, director of the Office of Tests at Harvard University since 1952, combines German teaching experience in both school and college with knowledge of tests and measurement, guidance, and the administration of college admissions. He claims—and is believed—to have little time for hobbies.

# Equating the Scholastic Aptitude Test

The lesson of the January scores-by RICHARD PEARSON

Almost immediately after reports of the January College Board scores were sent to schools half a dozen inquiries were received by Educational Testing Service. The letters explained that the scores for the Verbal section of the Scholastic Aptitude Test, in some cases, were lower than had been anticipated. They asked whether the January test form had not produced scores lower than those produced by other forms. The Educational Testing Service investigated these cases immediately and found that it had.

A notice sent to colleges and schools explained that the differences ranged from about 25 points in the upper score range to about 15 points in the middle score range to nothing at the lower score levels. These differences are of about the same order of magnitude as the errors of measurement typically expected from test scores. Since the additional discrepancy of as much as 25 points at the high score levels had been discovered, however, it was felt necessary and desirable to notify admissions officers of the error so that candidates who had taken the test in January would not be placed at any disadvantage when their scores were compared with those of candidates tested at other times.

It was found that the difficulty stemmed from the system used to relate successive forms of the SAT. New forms are prepared periodically to insure that candidates will not have prior knowledge of specific items and to permit the gradual introduction of new and improved test material. However, to maintain continuity in score reporting, scores on a new form must be expressed in terms which are directly comparable to scores on older forms. This is done by using in the new form a certain amount of material taken from an older form. This "test within a test" is the yard-

stick by which the performance of the candidates taking the new form is compared with the performance of a known group of candidates who took an earlier form.

This system of "equating" the SAT began with the test form of April 1941. The students tested were arbitrarily designated as the basic reference group whose scores were set so that their mean score was 500. The form administered the following April included a number of test items taken from the 1941 test. This common material, a gauge by which the performances of 1942 and 1941 could be compared, showed that the 1942 group was very slightly superior in verbal ability. This was reflected in the average verbal score for 1942 of 506.

As with most statistics, it could not be absolutely established that 506 was a wholly accurate description of the average verbal ability of the 1942 candidates in terms of the 1941 reference group. This value might have been as low as 503 or as high as 509. Fluctuations of this size are expected solely due to chance factors. The best estimate, however, was 506, and this figure was used.

#### COMPLEX SYSTEM OF LINKS

As new forms of the SAT have been developed since 1941, this equating procedure has linked each new form to some one preceding form. In all, more than 20 forms have been used. Their number and the present frequency of test administration have resulted in a complex system of links in order to approximate the standard score scale for each form. The forms are grouped like families in a regular genealogical table. Each family is traced back to a common ancestor and each ancestor is traced back to the original 1941

reference form. This system, plus the fact that any one form can only approximate the testing conditions facing the April 1941 candidates, produces a situation where some variations from form to form will inevitably exist.

These variations complicate the interpretation of average results of the growing number of candidates who first take the SAT as juniors in May and then repeat the test as seniors in January or March. Although occasional large variations for individual candidates occur, a general growth and practice effect observable in Verbal scores appears to permit the prediction of senior year scores from those obtained in the junior year. These "repeaters," who are tested on different test forms, not only emphasize the need for highly accurate equating methods, but help evaluate the accuracy of the equating system. This was the case in January when schools with repeaters observed that their gains were not consistent with past experience.

A survey indicated that the forms administered in May 1953 and in January 1954 were separated by nine links in the equating process. No material was common to the two forms, and in order to find such material, their ancestry had to be traced back through eight other forms. Under these circumstances, larger than normal differences of approximation would be expected. The survey also indicated that the January 1954 form was probably more divergent from the system as a whole than was the May 1953 form.

This experience has yielded information which will help to improve the method of equating forms in the future. Operationally, the number of links separating any two forms must be minimized. Work to accomplish this has been started, and no form used in the future will be far removed from any other test form. Secondly, a research investigation of procedures for equating one form to another form, it is hoped, will reduce the degree of approximation inherent in existing methods. If plans for this project are approved by the College Board Research Committee, the results will probably be ready for use with the test forms of 1954–1955.

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